ResearchGate

See discussions, stats, and author profiles for this publication at:
https://www.researchgate.net/publication/304652761

A Ghost in the Machine: How Sociology Tried to Explain (Away) American Flying Saucers and European Ghost Rockets,....

Chapter · January 2012

DOI: 10.1057/9780230361362_12

CITATION
1

READS
6

1 author:

Pierre Lagrange
École des Hautes Études en Sciences Sociales
9 PUBLICATIONS **7** CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:

sociology of "parascientific" controversies View project

All content following this page was uploaded by Pierre Lagrange on 17 October 2017.

The user has requested enhancement of the downloaded file.

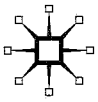
Imagining Outer Space

European Astroculture in the Twentieth Century

Edited by

Alexander C. T. Geppert
Emmy Noether Research Group Director
Freie Universität Berlin

palgrave
macmillan



Editorial matter, selection and introduction © Alexander C. T. Geppert 2012
Chapter 6 (by Michael J. Neufeld) © the Smithsonian Institution 2012
All remaining chapters © their respective authors 2012

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

No portion of this publication may be reproduced, copied or transmitted save with written permission or in accordance with the provisions of the Copyright, Designs and Patents Act 1988, or under the terms of any licence permitting limited copying issued by the Copyright Licensing Agency, Saffron House, 6–10 Kirby Street, London EC1N 8TS.

Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.

The authors have asserted their rights to be identified as the authors of this work in accordance with the Copyright, Designs and Patents Act 1988.

First published 2012 by
PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States, the United Kingdom, Europe and other countries.

ISBN 978–0–230–23172–6

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1
21 20 19 18 17 16 15 14 13 12

Printed and bound in Great Britain by
CPI Antony Rowe, Chippenham and Eastbourne

Contents

List of Figures and Plates vii

Acknowledgments x

Notes on Contributors xii

Abbreviations xvi

Introduction

1 European Astrofuturism, Cosmic Provincialism: Historicizing the Space Age 3
Alexander C. T. Geppert

Part I Narrating Outer Space

2 Space, Time and Aliens: The Role of Imagination in Outer Space 27
Steven J. Dick

3 Heaven on Earth: Tunguska, 30 June 1908 45
Claudia Schmölders

4 Imagining Inorganic Life: Crystalline Aliens in Science and Fiction 65
Thomas Brandstetter

Part II Projecting Outer Space

5 Projecting Landscapes of the Human Mind onto Another World: Changing Faces of an Imaginary Mars 89
Rainer Eisfeld

6 'Smash the Myth of the Fascist Rocket Baron': East German Attacks on Wernher von Braun in the 1960s 106
Michael J. Neufeld

7 Transcendence of Gravity: Arthur C. Clarke and the Apocalypse of Weightlessness 127
Thore Bjørnvig

Part III Visualizing Outer Space

8 *Per Media Ad Astra?* Outer Space in West Germany's Media, 1957–1987 149
Bernd Mütter

9 Balloons on the Moon: Visions of Space Travel in Francophone Comic Strips 170
Guillaume de Syon

10 A Stumble in the Dark: Contextualizing Gerry and Sylvia Anderson's *Space: 1999* 189
Henry Keazor

Part IV Encountering Outer Space

11 Life as We Don't Yet Know It: An Anthropologist's First Contact with the Science of 'Weird Life' 211
Debbora Battaglia

12 A Ghost in the Machine: How Sociology Tried to Explain (Away) American Flying Saucers and European Ghost Rockets, 1946–1947 224
Pierre Lagrange

13 Seeing the Future of Civilization in the Skies of Quarouble: UFO Encounters and the Problem of Empire in Postwar France 245
James Miller

Part V Inscribing Outer Space

14 Self-Reproducing Automata and the Impossibility of SETI 267
Gonzalo Munévar

15 Inscribing Scientific Knowledge: Interstellar Communication, NASA's Pioneer Plaque, and Contact with Cultures of the Imagination, 1971–1972 285
William R. Macauley

16 Alien Spotting: Damien Hirst's Beagle 2 Mars Lander Calibration Target and the Exploitation of Outer Space 304
Tristan Weddigen

Epilogue

17 Look Up! Art in the Age of Orbitization 319
Philip Pocock

Select Bibliography 342

Index 375

12

A Ghost in the Machine: How Sociology Tried to Explain (Away) American Flying Saucers and European Ghost Rockets, 1946–1947

Pierre Lagrange

In 1947, 'flying saucers' emerged as a subject of public, and sometimes scientific, controversy (Figure 12.1). Since that time, a number of historians and sociologists have tried to understand the emergence of this phenomenon on the margins of science. This essay aims to raise questions about how social scientists have studied the subject.

In their research on the topic, historians and sociologists have asked questions such as: Why do people believe in saucers? How did the contexts of the Cold War and science fiction culture influence this belief? In the early 1960s, Neil Smelser produced one of the classic sociological explanations of flying saucers: 'Recently anxieties over the potentialities of atomic warfare have led not only to predictions of world destruction, but also to many apparent misperceptions and hallucinations of "flying saucers" believed to be omens of destruction.' In 1999, historian of technology Tom Crouch considered the 'flying saucer craze [one of the] signs that US interest in spaceflight, leavened with a bit of Cold War apprehension, was on the rise.' For him, saucers 'spawned a new generation of science fiction films and had everyone looking to the skies and wondering what might be out there.' And of course, how can we forget Roland Barthes (1915–1980), often considered a founding father of cultural studies, who wrote in his famous *Mythologies*: 'The mystery of flying saucers was at first entirely terrestrial: we suspected that the saucers came from the Soviet netherworld, from this world as devoid of clear intentions as another planet.'[1]

The present chapter will demonstrate that these conclusions fail to take into account a significant subset of the data while also failing to distance themselves adequately from the situation they are supposed to study. More specifically, these authors forget that their explanations in terms of Cold War and science fiction influences do not come from critical historical or sociological analyses, but rather from what was said by participants in the controversy that raged in 1947 and the years that followed. Academics have overlooked the fact that the actors were already, without waiting for the arrival of scholars, their own sociologists and that they did not need Barthes and social historians to produce explanations in terms of Cold War or science fiction influences. Therefore the problem for sociologists becomes: how can scholars use Cold War or science fiction explanations in their

Figure 12.1 'Origin of the Flying Saucers,' a satirical drawing of extraterrestrials shooting tea pots and saucers at neighboring planets, by Ukrainian-born illustrator Boris Artzybasheff (1899–1965) and published in *Life Magazine* less than a month after the first UFO reports. 'The explanation of the flying disks [...] shows residents of the planet Neptune gleefully bombarding the universe with stacks of crockery fired by atomic saucer-launchers,' the original caption read, 'Neptunians thus far have aimed only saucers at the earth (top) but more favored planets have been shelled with teapots and dinner plates.'
Source: *Life Magazine* (21 July 1947), 15.

critical research, when these theories are part of the picture they should describe or explain?

I Saucer believers or skeptics?

To begin, we should question the idea that saucers started as a collective belief influenced by a heightened fear and credulity sparked by the Cold War context. To do this, we need to identify and analyze the origins of the phenomenon.

On Tuesday, 24 June 1947, Kenneth Arnold (1915–1984) (Figure 12.2) – an American businessman and private pilot – reported seeing nine strange-looking aircraft flying at twice the speed of sound in the sky above Mount Rainier, Washington. Virtually all UFO researchers and historians see this story as the beginning of the UFO controversy.[2] It was this very sighting that launched the public controversy in the press. The day following his aerial sighting, Arnold went to see journalists from the local newspaper of the little town of Pendleton, Oregon, where he had subsequently landed, and discussed his sighting with them. One of

Figure 12.2 Portrait of American pilot Kenneth Arnold (1915–1984), taken by the photographer of the *Idaho Daily Statesman* at his home in Boise, Idaho.
Source: *Idaho Daily Statesman* (28 June 1947).

the reporters, Bill Bequette (1917–2011), sent an Associated Press (AP) dispatch in which he described the objects seen by Arnold:

> PENDLETON, Ore., June 25 (AP) – Nine bright saucer-like objects flying at 'incredible' speed at 10,000 feet altitude were reported here today by Kenneth Arnold, Boise, Idaho, a pilot who said he could not hazard a guess as to what they were.
>
> Arnold, a United States Forest Service employee engaged in searching for a missing plane, said he sighted the mysterious objects yesterday at 3 p.m. They were flying between Mount Rainier and Mount Adams, in Washington State, he said, and appeared to weave in and out formation. Arnold said he clocked and estimated their speed at 1,200 miles an hour.
>
> Inquiries at Yakima last night brought only blank stares, he said, but he added he talked today with an unidentified man from Utah, south of here, who said he had seen similar objects over the mountains near Ukiah yesterday.
>
> 'It seems impossible,' Arnold said, 'but there it is.'[3]

It is this dispatch that generated the controversy over the existence of 'flying saucers.' After this story was published, hundreds of other observers reported their own sightings.

Is this communication the sign, as historians usually say, of the emergence of a collective belief or widespread public credulity? A close reading of this key document suggests otherwise. This article, in fact, does not even suggest that the saucers might have been Russian flying machines, or Russian propaganda – which would have been the case if people had been influenced by the Cold War context. On the contrary, this initial account emphasized Arnold's uncertainty about what he had seen. The fact that the dispatch noted that ' "It seems impossible," Arnold said, "but there it is," ' shows that the story provoked skepticism and not belief. And when we consider the very first article published in Pendelton's *East Oregonian* the same day, whose title reads 'Impossible! Maybe, But Seein' Is Believin', Says Flyer,' this point is reinforced (Figure 12.3).

It is true that Kenneth Arnold went on to discuss his sighting with fellow pilots and journalists because he thought he had seen secret weapons, whether American or Soviet, and demanded that a military and federal investigation be conducted. It is true that there were some fellow pilots who mentioned the possibility that these objects might be American or foreign secret weapons. It is also true that when we read the press accounts published in 1947, we find some authors who mention the possibility that these saucers might be Soviet aircraft. For example, in his column 'The End of the Week' for the 27 June 1947, *East Oregonian* editor Nolan Skiff wrote: 'We hope they are ours.' We could conclude, then, that these actors were influenced by the Cold War context. But these people were very few indeed, if we compare them to the number who expressed incredulity in response to the story. From Arnold's very first discussion with his friend Al Baxter at Yakima airport, to his conversations with reporters in Pendleton, the debate focused not

Impossible! Maybe, But Seein' Is Believin', Says Flyer

Kenneth Arnold, with the fire control at Boise and who was flying in southern Washington yesterday afternoon in search of a missing marine plane, stopped here en route to Boise today with an unusual story—which he doesn't expect people to believe but which he declared was true.

He said he sighted nine saucer-like aircraft flying in formation at 3 p. m. yesterday, extremely bright—as if they were nickel plated—and flying at an immense rate of speed. He estimated they were at an altitude between 9,500 and 10,000 feet and clocked them from Mt. Rainier to Mt. Adams, arriving at the amazing speed of about 1200 miles an hour. "It seemed impossible," he said, "but there it is—I must believe my eyes."

He landed at Yakima somewhat later and inquired there, but learned nothing. Talking about it to a man from Ukiah in Pendleton this morning whose name he did not get, he was amazed to learn that the man had sighted the same aerial objects yesterday afternoon from the mountains in the Ukiah section!

He said that in flight they appeared to weave in an out in formation.

Figure 12.3 Caption from the first page of the *East Oregonian* issue of 25 June 1947, with the very first newspaper article on flying saucers.
Source: *East Oregonian* (25 June 1947).

on secret weapons but on the fact that Arnold's senses played tricks on him. Even among Arnold's friends, many refused to consider the saucer as a secret-weapon issue. Instead, they cast it as a misperception or a product of Arnold's imagination, thereby placing the story in the context of a discussion over what is real and not real, a debate that would later develop in the press and among scientists over the real/imaginary and later rational/irrational nature of saucers. In the interview he gave over radio KWRC in Pendleton on 26 June 1947, Arnold recalled: 'He [Al Baxter] told me I guess I'd better change my brain (laughs), but he kind of gave me a mysterious sort of a look that maybe I had seen something he didn't know.'[4] While Arnold referred to the military implications of his sighting, his friends continued to question the reality of the events reported. In 1952, Captain Edward J. Ruppelt (1923–1960), the head of Project Blue Book (the UFO program of the US Air Force conducted between 1952 and 1970), met with a fighter-bomber pilot who was a reporter in civilian life and had worked on Arnold's story. This reporter, most probably David N. Johnson of the *Idaho Daily Statesman*, told Ruppelt 'that when the story first broke, all the newspaper editors in the area were thoroughly convinced that the incident was a hoax, and that they intended to write the story as such.'[5]

From Yakima to Washington, DC, the majority of the experts expressed incredulity over what had been reported. On 26 June, the press noted the skepticism of military spokespersons in Washington, DC: 'As far as we know, nothing

flies that fast except a V-2 rocket, which travels at about 3500 miles an hour – and that's too fast to be seen.' The following day, an AP dispatch summed up the debate: 'It is still uncertain whether the shiny discs [...] were objects or optical illusions.' And an astronomer at the University of Oregon formulated a similar hypothesis: 'I believe this man could have been a victim of "persistent vision" from reflections on the glass of his plane,' he asserted. Most newspapers, then, felt compelled to discuss whether the disks really even existed.[6]

If we want to maintain that saucers were a Cold War belief, we must ignore the views of the vast majority of the actors in the controversy who expressed doubt over the reality of the saucers, or we must reduce our analysis only to the claims of the 'believers.' Conversely, we could argue that these skeptical articles were simply reactions to the huge wave of credulity raised by the appearance of flying saucers. But to understand the problem fully, we must ultimately consider the perceptions of all the key players and not just some of them. And the fact is that from the very beginning, the reality of the saucers was seriously challenged. A careful analysis reveals that the saucer phenomenon was not the product of a wave of believers countered by a few skeptics, but just the opposite: the original story was based on the views of a majority of skeptics critical of a minority belief which the majority deemed preposterous. In fact, nearly everyone wanted to appear a skeptic rather than a believer. The believer is always the other.[7]

Even if it is true that there were people who believed in the reality of the saucers, it is also true that these people did not want to look like believers and should not be portrayed as such. Believers and skeptics are not simply two social categories into which we can distribute the people who participated in the discussion. These categories – just like the categories of deviance or superstition – are constructed in the very course of the discussion by participants who are themselves both skeptics and believers, determined to shield themselves from charges of excessive credulity.[8] We need only turn to the experience of Kenneth Arnold to see how complex this situation was. Kenneth Arnold, the man who started it all, turned skeptic – or, more precisely, referred to the divide between skepticism and credulity as a strategy to protect himself – when he saw the furor unleashed by his sighting. Even though Arnold thought the objects he saw might be secret weapons, the nature of the popular debate sparked by his sighting caused him to reconsider. Arnold later wrote: 'From then on, if I was to go by the number of reports that came in of other sightings and of which I kept close track, I thought it wouldn't be long before there would be one of these things in every garage. In order to stop what I thought was a lot of foolishness and since I couldn't get any work done, I went out to the airport, cranked up my plane, and flew home to Boise.'[9]

The divide between believers and skeptics thus appears to be more complex than scholars have often assumed. If we want to explain how Arnold might have been influenced by an awareness of new weaponry in the Cold War context, we must also explain why, at other moments in the discussion, he chose to voice skepticism about sightings reported by others. And we must also ask why we should explain Arnold's skepticism and not the skepticism of the other participants. These

categories of skepticism and belief evolved during the debate; thus, we cannot justify the continued study of *why* people believed in saucers, since these people may have considered themselves skeptics, as was the case with Arnold. In other words, we cannot ask how and why the actors believed this or that because, through their actions, they constructed or deconstructed the very categories of belief and skepticism.

We cannot simply ask, therefore, why Arnold and others were influenced by the Cold War, without asking why others were so preoccupied with – even influenced by – the idea of dividing skepticism and credulity. Another key document comes into play here. Between 25 and 30 July 1947, only a month after the discussion started, the Gallup institute conducted a poll on the topic of flying saucers. One of the questions engaged the nature of saucers: 'What do you think these saucers are?' Far from being under the influence of the Cold War context, respondents offered an array of explanations unrelated to possible Cold War fears. A full 29 percent answered that the saucers were optical illusions or imaginary entities, while 3 percent thought them to be meteorological instruments. Another 2 percent responded that the sightings were caused by anti-aircraft searchlights, and 10 percent believed these sightings were simply a hoax.[10] It is clear that most people were 'skeptical' about the existence of real saucers. Though it is true that 15 percent of the population answered that the saucers might be a secret American weapon, only 1 percent attributed them to the Russians. In that same poll, a question was asked about what interviewees considered the most important problem the country confronted, and we see that it is rather difficult to determine whether the Cold War was central among concerns mentioned by the public. In the poll, only 3 percent mentioned the control of atomic weapons as important; 1 percent mentioned communism; but 21 percent considered that the most important problem was to maintain peace and prevent war, which could be considered a fear connected to the Cold War. If we accept the idea that the Cold War was a matter of concern for a significant portion of the interviewees, it is nevertheless clear that the conflict was not the primary factor influencing their reaction to reports of flying saucers.

In spite of this evidence, historians and sociologists might of course reply that it is the scholar's task to unearth the 'real' context of the discussion and that, as an observer and analyst, he is not obliged to accept the actors' explanations. It is this approach that has, until now, led most historians to contend that the proper context of the discussion is the Cold War atmosphere. But it is crucial that we acknowledge that academics have not paid sufficient attention to the situation as it developed in 1947. Moreover, we must explain a series of problems raised, as we will now see, by another phenomenon that appeared in Europe a year prior to the first purported sightings of flying saucers in the United States.

II Constructing European ghost rockets as a Soviet menace

Beginning in late May 1946, northern Europe – especially Sweden and Norway – became the theater of nearly a thousand sightings of strange phenomena described as rockets of unidentified origin. In this case, however, most people believed these

craft were of Soviet provenance. The press, just as they had in response to saucers in the United States, participated in the public debate around these sightings.[11]

The two situations were so similar that most historians, including both professional and amateur UFO historians, have considered these so-called ghost rockets to be some sort of 'pre-Arnoldian' saucers.[12] But these observers fail to consider that the two situations, even if they look very similar from a certain perspective – the two events started from sightings reported by individuals, after which the military started an investigation and the press discussed the sightings – were in fact a far cry from one another. That is, the nature of the collective debate they generated varied greatly. From the very beginning, these two public discussions diverged. While the American saucers debate centered on whether they were real or not, no one expressed any doubt about the reality and materiality of the European ghost rockets. Their reality was considered a matter of fact: they were interpreted from the beginning as a secret Soviet weapon launched over the Baltic Sea to create a public scare about the possibility of a third world war.

The different treatment of the ghost rockets and the saucers is reflected in their respective press accounts. Not only the Swedish newspapers – which could be accused of lacking distance from sightings that occurred in their country – but even the *New York Times* in the United States or *Le Monde* in France, both newspapers that would prove to be so skeptical of the reality of saucers in 1947, took the ghost rockets at face value.

For example, in its edition of 9 August 1946, *Le Monde* reported that 'another of these flying bombs has been seen by Lieutenant Lennart Nackman, from the Swedish territorial army staff.' The paper also noted that 'according to the experts, the hypothesis of meteors is absolutely excluded.' The article went on to mention that Swedish authorities had received thousands of letters that allowed them to reconstruct the trajectory of the rockets. From these letters, officials concluded that the rockets came from the Baltic Sea and were much more powerful than the German V-2. On 13 August, *Le Monde* revealed that one of the rockets fell near a city in Sweden, but that the military kept the name of that city secret so that no information could reach the foreign country that might have been the origin of the launching. A *Le Monde* article dated 16 August 1946 outlined how the debris of the rocket had been obtained and suggested that the materials 'were submitted to intense heat.' Not only were the rockets considered real, but, as we have seen, subsequent popular accounts, from the verdict of the experts to the discovery of debris, suggested that no one doubted their reality. Like *Le Monde*, the articles printed in the *New York Times* represented a collection of articles, often on the front page, that recalled the sightings and the discussion in Sweden without expressing the slightest doubt.[13]

The difference between reactions to the flying saucers and ghost rockets is striking. In 1947, most commentators questioned the reality of flying saucers and attributed their emergence to eyewitnesses' limitations and popular credulity; in 1946, the facts were taken at face value, nobody spoke of belief, and the idea of discussing the facts occurred to no one except perhaps as a figure of speech to show how the facts were unquestionable. Thus, if we want to describe a phenomenon that resembles one like the flying saucers *and* that seems to have been influenced by the Cold War, we must turn to the ghost rockets.

Historians, at least, can argue that if Cold War explanations do not work for saucers, they work perfectly for ghost rockets. But we should now examine why this explanation in terms of Cold War influence, even for 1946, is not pertinent after all. There are two reasons.

First, how can we have two reactions so different when concerns about the Cold War would have been so similar? Both in Europe and the United States, there were fierce debates about secret weapons and the fear of a third world war. In 1946 and in 1947, journals and newspapers on both sides of the Atlantic printed numerous articles claiming that the Soviets were far in advance in the air, that the ocean was no longer a significant buffer between the USSR and the United States, and that it had become possible to fly over the pole. The French science magazine *Science et Vie*, for instance, published papers about the progress of rocket technology. Its February 1946 issue cover, which shows a rocket based on the German anti-aircraft missile Rheintochter R-1, crossing the sky at night, appearing exactly like a ghost rocket would, is indicative of this trend (Plate 7).[14] In the United States, articles from the beginning of 1947 – a few weeks before the arrival of flying saucers – dealt with similar issues. For example, a story in *Collier's* magazine addressed the progress of Soviet aeronautics and asked, 'Will Russia Rule the Air?' The article reported that there was no longer any meaningful distance between Soviet and American territories because of the possibility of flying over the Pole. It even mentioned as evidence in this regard the mysterious rockets observed in 1946: 'Scandinavian countries have reported mysterious rockets and lights knifing their skies. They are not rockets of course, which could not be seen. They are Russian stepchildren of the V-1, which devastated London. But instead of a range of 160 miles, these have a range that carries them across the Pole – from Europe to a target area in Siberia.'[15]

Of course we can explain the difference in tone between the discussion on flying saucers and the one on ghost rockets by claiming that the only real Cold War context was in Europe and that the Americans never really believed in the possibility of being overflown by Soviet aircraft or guided missiles. Americans, still sheltered from direct contact, would be less susceptible to Cold War beliefs, while Europeans, within easy striking distance, would harbor more active fears of a Soviet threat. But then we have to explain why the Americans participated in this Cold War escalation by responding to the Soviet menace through the launching of spy flights above the Pole. Sometimes these spy flights even flew over the Soviet border.[16] And we have to explain why the T-2 (Technical Intelligence) Department at Wright Field (later Wright-Patterson Air Force Base), near Dayton, Ohio, was dedicated to the prevention of surprise attacks from the Soviets. And last but not least, we have to explain why, while the public debate on saucers focused on the question of public credulity, the military experts at Wright Field concluded that the saucers were real and not imaginary. Indeed, some of these experts believed that the saucers were real flying machines, possibly of Soviet origin, which was a view not expressed in public, of course, and which historians only discovered years later when the formerly secret documents were released to the public.[17]

Why, then, when we are dealing with such similar contexts, did the two stories develop so differently? The answer is not that Cold War concerns were irrelevant to the 1947 American scene in general but that it does not apply to the particular debate on saucers. Historical explanations must be more subtle and specific. While observers in 1946 chose to focus on Russian technology, participants in the saucer debate in 1947, even if they may have also been interested in discussing Russian technological progress, preferred to concentrate on credulity and skepticism when it came to the particular subject of saucers. There is no single context available in which to interpret the facts, but several.

The second reason for which we cannot accept the Cold War context as the determining factor in shaping this discussion is that it cannot account for what transpired over the long term. After two months, opinions expressed about ghost rockets turned from belief to skepticism. Like the saucers, ghost rockets eventually became imaginary in the collective mind. Suddenly, ghost rockets were no longer Soviet rockets. Suddenly, the actors in the debate found it much simpler to explain ghost rockets as beliefs rather than products of Soviet technology.

The first mention of the fact that the rockets might have been imaginary appeared at the beginning of September 1946. The *New York Times* reported that the Soviet journal *New Times* 'denounced as anti-Soviet slander today allegations that radio-controlled shells fired by Russia were crossing Swedish territory.' The journal reduced the story to one about panic and mirages. We might expect people to doubt explanations furnished by the Soviets as nothing but war propaganda. But from that point on, the ghost rockets were no longer perceived as unquestioned facts. By 17 September, the Soviets were not the only skeptics, and the press mentioned the hypothesis expressed by 'Dr. Manne Siegbahn, a 59-year-old Swedish nuclear physicist and Nobel Prize winner,' which cast 'doubt about recent reports that rocket bombs had been fired over Sweden.'[18] The journal quoted scientists who said: 'There is no clear evidence that any guided missiles have been flying over Sweden. [...] I myself examined one reported to be such a missile and found it was a meteorite. I am very suspicious about the existence of any such thing.' The scientist further 'declared that "hysteria" might have been a factor in reports about the missiles.' From then on, skeptical accounts would proliferate in the journals, and the ghost rockets would lose their status as established facts, becoming yet another example of visions and rumor. Just as their counterparts were in the construction of the early flying saucer storyline, the actors in the ghost rocket narrative were always where we do not expect them to be. One moment they looked like believers, the next moment they became skeptics. It seems that far from being under the influence of the context, participants in this drama could move from one context to another very easily.

This brings us to another view of the notion of context. If we return for a moment to saucers, we can see how the Cold War explanation appeared as an element in the public controversy concerning the existence of saucers. In 1951, journalist and commentator Bob Considine (1906–1975) published the result of his investigation in *Cosmopolitan*. He stated that 'pranksters, half-wits, cranks, publicity hounds, and fanatics in general are having the time of their lives playing on

the gullibility and *Cold War jitters* of the average citizen. It is their malicious fancy to populate the skies over America with a vessel that just does not exist – the flying saucer.' Introducing the Cold War context in his paper allowed Considine to marginalize the people who reported seeing saucers.[19]

Thus, the conclusions of the historians and sociologists who later identified the Cold War influence on the flying saucer phenomenon were anticipated by the very actors of the saucer controversy. These early observers were in fact their own sociologists and historians. They did not need scholars to propose the importance of the Cold War as a factor in shaping what people saw in the skies of Europe in 1946 and 1947. And scholars are often not very far from being actors in the controversy, rather than the analysts they purport to be. If we remember that Barthes wrote his paper right after the intense public debate that followed the saucer wave in the fall of 1954, we see that he was hardly a neutral observer of the situation, but rather somebody who plunged directly into it.

III Science fiction influence?

After turning the usual historical explanation that flying saucers were a Cold War phenomenon upside down, it is necessary to discuss another important contextual explanation that is used to explain the rise of 'belief in flying saucers' in 1947. Namely we need to determine whether the sighting of flying saucers can be attributed to the influence of science fiction on the people who saw or 'believed' in UFOs.

This time, at least, the explanation appears credible on the surface. Since the creation of *Amazing Stories* in 1926, the very first pulp science fiction magazine, the United States was the place where popular magazines dedicated to science fiction literature multiplied.[20] In fact, it was there that the very word 'science fiction' (first 'scientifiction') was coined. Therefore, it is not unreasonable to assume, as a result of this influence, that saucers were likely connected in the public mind to the idea of their extraterrestrial origin.

As former NASA chief historian Steven J. Dick has argued, 'this controversy [regarding UFOs] would become intimately associated with the debate over the existence of extraterrestrial intelligence.' Dick further states that 'in 1947 [...] it was not long before the extraterrestrial hypothesis (ETH) was put forth as a possible explanation.' But, he adds, at first 'very few people immediately sought an extraterrestrial explanation.' He cites the poll conducted by the Gallup institute in August 1947, discussed above, to show that 'most [of the population] thought they were illusions, hoaxes, secret weapons or other earthly phenomena' and did not mention the possibility that these events were linked to extraterrestrials. UFO historian Jerome Clark also shows that the extraterrestrial hypothesis emerged very early in the public discussion of the flying saucer controversy, if not exactly at its beginning.[21]

Unfortunately, when we look carefully at the sources, the explanations offered by Dick and Clark are both true and false. It is true that the extraterrestrial hypothesis was mentioned very early, in fact, even earlier than indicated by these two authors. A review of the articles published on saucers in the press during the

summer of 1947 shows that from the very beginning, notions about saucers and other planets helped shape the popular understanding of the phenomenon.[22] For example, as early as 26 June 1947 – when the very first newspaper articles on the subject were printed – the *La Grande Evening Observer*'s title about Kenneth Arnold's sighting read, 'Pilot Sees Planes From Other World.' The *Vancouver Sun*, quoting an International News Service dispatch, explained that Kenneth Arnold reported seeing 'nine saucer-shaped Martian planes.'[23]

But it would be wrong to assume from these references to Mars and to 'other worlds' that they reflected any particular 'belief': was this extraterrestrial hypothesis mentioned to enhance the public's belief or discourage it? The explanations offered by Dick and Clark, then, neglect to address two important questions: Was the outer-space origin a reference to the scientific discussion about life on other worlds or to the Martian invasions of science fiction? In 1947, in addition to the continuation of the old debate about Martian life and the canals, there was a new wave of discussions among scientists on the possibility that life existed beyond the earth, and the public was certainly privy to this information.[24] But it was not *that* extraterrestrial debate that was mentioned in the public coverage of flying saucers; instead, these references typically invoked popular science fiction culture that referred to 'men from Mars.'

One example will suffice to show with which sort of alien beings flying saucers were associated. Like most of the people who commented on the news, historian Marjorie Hope Nicolson (1894–1981) recalled in her famous *Voyages to the Moon*, published in 1948, that on 11 July 1947, 'when I turned on the radio [I heard] the most recent chapter in the "Strange Saga of the Flying Saucers" that is amusing or terrifying us today':

> I heard over the air – as I have been expecting to hear for some days – that the latest theory about the apparitions is that they come not from Russia but from Mars! And then, as I opened a new box of breakfast food, my eye fell upon the picture of a bold mariner in ultra-modern flying dress, about to take off from the earth to Saturn, complete with a spectacular ring. I stopped to read the captions in Brobdingnagian letters:
>
> BEYOND ROCKET POWER!
> BEYOND THE ATOMIC BOMB!
> BEYOND THE FUTURE!
> BIG NEWS!
> BUCK ROGERS IS ON THE AIR![25]

This anecdote is revealing. Nicolson did not associate the Martian origin of saucers with a scientific debate on life on Mars but with *Buck Rogers* – with pulp culture and comics. Like Barthes in 1955, Nicholson, who through her allusion to *Buck Rogers* served to marginalize the credibility of UFO sightings, was far from being a neutral observer.

Moreover, Dick and Clark forget to pose a second important question. If pulp culture influenced the controversy, did it do so in the sense we usually think – to

influence people to believe in the interplanetary origin of saucers, to introduce this hypothesis as a serious solution to saucers? One might still contend that there was a difference between the skeptical comments by the press and scholars, and the beliefs of the public. The answer to this question is a firm no. Instead of pushing people to believe in the extraterrestrial origin of saucers, the influence of science fiction tended to produce just the reverse: it discouraged them from seriously entertaining this idea. It contributed to the debunking of the Martian saucers by making them appear non-scientific. The interplanetary hypothesis was mentioned not because people believed it to be true, but because they wanted to show how this idea was not serious. Invoking the 'men from Mars' storyline was one more method to debunk the reality of saucers. If people referred to 'men from Mars' and not to life on other planets, it is because, in the public mind, saucers were connected not to scientifically sound discussion but rather to the worlds of pulps and comics. It was to show how this idea was silly.

We must remember that pulp magazines were considered by literate people as lowbrow; indeed, as an inferior product of popular culture. Even the people who read them had the feeling they were outside 'real' literary culture.[26] Illustrators were not inordinately proud of illustrating these magazines. And their authors had only one wish: to be published in the slick magazines.[27] Kenneth Arnold, who is supposed to represent the 'popular culture of flying saucer belief,' expressed strong criticism of pulp culture, which he viewed as producing the 'type of publications that I not only never read but had always thought a gross waste of time for anyone to read.' Like Arnold, intellectuals were busy denouncing this 'popular literature' while examining and psychoanalyzing the comics.[28]

Several other episodes show how the extraterrestrials were mentioned in an effort to marginalize the saucers. Kenneth Arnold described how a woman recognized him in a Pendleton café and rushed out madly, saying: 'There's the man who saw the men from Mars.' During the month of July 1947, many newspapers reprinted a story about the experience a journalist, Hal Boyle, claimed to have had. Boyle said he had been abducted by Martians and sent to their planet aboard a flying saucer. His story had the ring of a joke more than a serious story. On 21 July, *Life* discussed, in a humorous tone, the idea that saucers might be sent by aliens. Next to a drawing by Ukrainian artist Boris Artzybasheff (1899–1965) (Figure 12.1), *Life* claimed saucers were just that: saucers, but they were sent by Neptunians who have 'attained a civilization far in advance of that now enjoyed on earth [and] are shelling the universe with crockery.'[29] The association of the saucers with the 'men from Mars' allowed critics to dismiss flying disks as products of over-active imaginations or misunderstandings.

As noted above, during the late 1940s there was already a scientific discussion on extraterrestrial life, and it would have been possible for people to connect saucers to this discussion of life on other worlds. But for scientists, this idea of connecting saucers to one of their subjects of inquiry was ridiculous. They considered there to be a huge divide between the way people were 'fascinated' by men from Mars and bug-eyed monsters from science fiction, and the way they themselves 'studied' the possibility of life on other worlds. Until the end of the nineteenth century,

scientists, in particular those connected to physics, had been busy constructing a divide between themselves as professionals on the one hand, and with amateurs and the public on the other.[30] Scientists were interested in extraterrestrial life, but their interest – they thought – was vastly different from the interest they attributed to the press and the public. They did not look at the same extraterrestrials with the same tools. In September 1947, a colloquium on astronomy organized by Gerard P. Kuiper (1905–1973), professor of astronomy and director of the US Yerkes and McDonald observatories, was dedicated to the question of planetary atmospheres. 'The question of life on other worlds can be settled only through the study of planetary atmospheres,' read the jacket of his book. For participants the question of extraterrestrial life could not be solved by looking directly at the sky for 'spaceships' but by studying planetary atmospheres. The public and the scientists could not have been much further apart one from another.[31]

Apart from scientists, in 1947 the tendency to connect saucers with scientific quests for life on other worlds was not frequent, to say the least, among journalists or the public. Even the few articles that tried to connect saucers with extraterrestrial life tied their content to occult culture and not to science.[32]

For most people, the idea that saucers could be connected to something more scientific than 'men from Mars' was often almost inconceivable. As we have just seen, most were busy making jokes about 'the others' who were supposed to believe in Martian saucers. And in the previously mentioned Gallup poll, one of the two questions asked discussed the nature of saucers: 'What do you think these saucers are?' For 29 percent, they were optical illusions, imaginary things. Of the 42 percent of people who replied, 33 percent responded that they did not know what saucers were, and 9 percent reportedly gave 'other answers.' The interplanetary hypothesis was not even mentioned in the poll. Is it possible that the interplanetary saucers – that is, saucers seriously thought to be of interplanetary origin – were unreported in the 9 percent of 'other answers'? According to the press dispatch released with the poll, the thesis of spaceships could not be measured. These 9 percent mentioned the end of the world, secondary effects of the atomic bomb, and so on. Therefore, we must conclude that when it comes to saucers in 1947, 'men from Mars' were mentioned very often in explanations, while extraterrestrial life was not.[33]

Of course the situation did evolve – but this absence of any mention of interplanetary saucers is one more piece of evidence that this idea had no success in 1947. Between 1947 and 1950, a subculture of people who took seriously the hypothesis of an interplanetary origin for saucers began to emerge. This new tendency culminated in 1950 with the publication of a famous article – and subsequent book – by Donald Keyhoe (1897–1988), a former military man turned journalist, in the magazine *True*.[34] In most cases UFO historians note that Keyhoe launched the extraterrestrial hypothesis, while other UFO historians have tried to demonstrate that Keyhoe was not, in fact, the first.[35] In their attempts to discover who was the first to mention extraterrestrials, historians often forget the tone with which this ETH was expressed. Scholars also fail to remember the status of the author who advanced that view (authors who discussed the interplanetary

hypothesis before Keyhoe often had an audience limited to the pulp magazines or occult fanzines and had no access to magazines of better popular reputation[36]), and in particular they forget that between the summer of 1947 and the publication of Keyhoe's paper in 1950, the actors of the debate had gradually moved from the 'men from Mars' thesis to the idea of saucers of interplanetary origin. This point is clearly demonstrated when we look at Keyhoe's book. When he first heard about the interplanetary hypothesis, he could not take it seriously. It reminded him of the 'men from Mars' from his pulp-writing period (in the late 1940s, Keyhoe published several stories in pulp magazines). Describing his earlier experiences, Keyhoe writes: '[F]aced with this evidence of a superior race in the universe, my mind rebelled. For years, I had been accustomed to thinking in comic-strip terms of any possible spacemen – *Buck Rogers* stuff, with weird-looking spaceships and green-faced Martians.' The way he recalls the discussion with a pilot who told him he thought saucers were interplanetary illustrates how, for him, the idea of extraterrestrials was connected to the pulp universe, and therefore could not be taken seriously: 'I'd heard some "men from Mars" opinions about the saucers, but this was an experienced pilot. "You don't believe that?" I said.'[37]

It is only after a discussion with two of *True's* editors, who had come to the conclusion that the saucers were of interplanetary origin, that Keyhoe started to reconsider his views. After discussing the other hypotheses (Russian, misinterpretations, etc.), Keyhoe had the following discussion with editors Ken Purdy and John DuBarry:

> 'You've left out one answer,' said Purdy.
> 'What's that?'
> 'Interplanetary.'
> 'You're kidding!' I said.
> 'I didn't say I believed it,' said Purdy. 'I just say it's possible.'
> DuBarry was watching me. 'I know how you feel. That's how it hit me when Ken first said it.'
> 'I've heard it before,' I said. 'But I never took it seriously.'[38]

The idea of linking flying saucers with men from Mars was present from the very beginning, but connecting them with 'serious' discussions on the possibility of extraterrestrials traveling by spaceship took three years to occur among the public. Therefore, if we want to maintain that science fiction had an influence on the way people discussed saucers, we should also accept that it influenced them in the direction of skepticism and not belief: because the pulp universe was peopled with men from Mars, important segments of the public became more skeptical. And it was these skeptics who associated saucers to 'men from Mars' to show how fatuous the subject was. Instead of being under the influence of science fiction, people used the connection between saucers and the pulps to debunk the idea that saucers were of Martian origin. Historians who have tried for years to establish when the extraterrestrial hypothesis was first mentioned, forgot to question *how*, and to what end, it was introduced. This brings us back to the point we raised in

the two preceding sections: the public was not simply influenced by the context, they chose it and even constructed it through their own discussions and actions.

IV A new social history of flying saucers

If we want to understand the construction of phenomena like flying saucers in 1947, we must forget the classical explanations in terms of cultural and political influences. Flying saucers were *not* the result of Cold War fears and anxieties. They were not influenced by science fiction – for the very reason that the notion of influence cannot be applied to people in a one-dimensional sense. Even if we cannot simply do what we want in a given situation, influence works in subtle ways, and people are active in the influences they accept or reject. If a context played a role in the narration of these experiences, it was not the Cold War – rather, it became the idea of separating the naïve from the skeptics, and even the idea of creating the very categories of naïve and skeptical. If science fiction played any role, it was in the direction of marginalizing saucers and not in making people believe in them.

Why, then, have so many scholars consistently considered UFOs to be the result of Cold War apprehensions or science fiction fantasies? Three reasons can be identified:

First, historians have never investigated how the story started and thus have never realized that the points they were discussing were the very points discussed by the actors who launched the public debate on saucers. All scholars previously mentioned – except Clark and Dick – have never taken the care to go back to the original sources.[39]

Second, they write history and sociology from the point of view of the elite, much as historians were used to doing not so long ago in their disparaging analyses of 'popular culture' and 'popular beliefs.' None of the historians discussed here ever mentions the works produced by social historians or sociologists on the concept of 'popular culture' or the critiques these scholars have leveled against earlier biases. Suddenly, when it comes to saucers, the same sociologists who would have been scandalized to see other subjects being treated dismissively as popular culture, or as beliefs, use these same terms without any care. While historians and social anthropologists have learned how to study 'popular culture' by also studying 'elite culture,' when it comes to saucers and UFOs, they do not even think to apply the very tools they apply to other 'popular subjects.'[40] The reason is simple: if historians and sociologists forget to distance themselves from the context in which saucers emerged, it is because they have no distance. Unlike the medieval peasants or the Bororos, American saucer witnesses belong to the same society as the historian. What happened to saucers is similar to what happened to the *Bibliothèque bleue* and its first scholar, Charles Nisard (1808–1890), in the nineteenth century. As Michel de Certeau, Dominique Julia and Jacques Revel have argued, the very first studies of popular culture like the *Bibliothèque bleue* coincided with attempts to eradicate it.[41] Is there a popular culture outside the movement that suppressed it, they asked? Is there a flying saucer belief

outside the one denounced by learned members of contemporary society? Perhaps we should reconsider the view expressed by Roland Barthes, quoted above. Like Marjorie Hope Nicolson, who published her book *Voyages to the Moon* a year after the 'saucer scare,' Barthes first published the chapter on 'Martians' that later appeared in his 1957 book in *Les Lettres nouvelles* in 1955, a few months after the flying saucer wave that submerged France in the fall of 1954.[42] Was Barthes an outside observer of the situation or an actor participating in its staging? Many scholars ultimately boarded flying saucers like Barthes; they participated in the public debate more than they distanced themselves from it to explain how both skeptics and believers constructed their views.

Third, not only do historians forget to distance themselves from the elite culture that participated in the marginalization of saucers, they also fail to realize that the categories of 'popular' and 'elite' are social constructions, that these categories do not exist apart from the work of the actors who construct them.[43] In his famous work *Outsiders*, Howard Becker has shown that we cannot simply ask why people are deviant, but that we must understand how the notion of deviance, how the categories of deviance and normality, and the divide between them, are constructed.[44] When historian Jean-Claude Schmitt discusses the subject of superstitions, he does not focus on the question 'why are people superstitious?' or 'what context influenced the superstition of the peasants?' Instead, he explains how the concept of superstition was invented by the spokespersons of clerical culture of the Middle Ages to construct a divide between clerical and peasant cultures, and thus tries to understand how the actors of that society collectively constructed the context that gave birth to the notion of superstition. Schmitt maintains that we cannot take the concept of superstition for granted, and must describe its emergence as an explanation by churchmen for the behavior of the people. In other words, superstition is not the explanation; it is what needs to be explained.[45] If we apply Becker's and Schmitt's method to the 'flying saucer belief,' the problem is no longer to understand 'why people believe in UFOs' but to understand how the categories of belief, credulity, irrationality and those of disbelief, skepticism and rationality are socially constructed. In short, we need to explain how people collectively constructed the divide between belief and skepticism during the public controversy that started in 1947 and what words and concepts they used. Schmitt shows that if historians discuss 'how and why people are superstitious,' they are simply reproducing the controversy started by intellectuals in the Middle Ages. A number of studies have been devoted to controversies on the margins of science like parapsychology, sea serpents or UFOs. Like the studies on deviance, on popular culture and on superstitions, these works have shown that the sociologist cannot take for granted the idea of a divide between what is scientific and what is not, but instead, he must follow the actors, all the actors, 'believers' and 'skeptics' alike, to see how they construct their worlds.[46]

The contextual explanation appears as a weapon used by some actors to discuss the view of other actors. The Cold War did not subconsciously, or otherwise, cause men and women to see saucers in the night skies; instead, participants in the discussions of these sightings purposefully linked UFOs to irrational anxieties

about the Cold War or fantasies loosed by science fiction. Therefore we should not search for the real context and the true reality that might exist outside these accumulations of actions and words. The idea of describing who is under the influence of the context only reveals the researcher's prejudices. Like the sociologists and historians just discussed, we should instead describe how historical actors, rather than being believers, collectively constructed the categories; how the participants collectively defined not only the reality but also the context; how they imagined the nature not only of the material world but also of the sociological world; how they gave form to the reality of saucers and ghost rockets and the qualities of the men and women who reported seeing them.[47] The argument that the flying saucers were a Cold War and science fiction phenomenon is not the solution to the historical conundrum, but rather one of the results of a collective debate set in 1947.

Notes

1. Neil J. Smelser, *Theory of Collective Behavior*, London: Routledge & Kegan Paul, 1962, 90; Tom D. Crouch, *Aiming for the Stars: The Dreamers and Doers of the Space Age*, Washington, DC: Smithsonian Institution Press, 1999, 119; Roland Barthes, *Mythologies*, Paris: Editions du Seuil, 1957, 42: 'Le mystère des Soucoupes volantes a d'abord été tout terrestre: on supposait que la soucoupe venait de l'inconnu soviétique, de ce monde aussi privé d'intentions claires qu'une autre planète.' I wish to thank most sincerely Alexander Geppert and James Miller, for their astute comments and English corrections. This chapter is respectfully dedicated to the memory of William C. Bequette, who helped start it all.
2. For biographical information on Arnold, see Brad Steiger, ed., *Project Blue Book*, New York: Ballantine Books, 1976, 26–7; and Kenneth Arnold and Ray Palmer, *The Coming of the Saucers*, Boise, ID: privately published, 1952, 5–6. David Jacobs, *The UFO Controversy in America*, Bloomington: Indiana University Press, 1976, 36–7. Most accounts of Arnold's sighting include important errors. In 1988, I conducted an investigation in the Pacific northwest of the United States during which I was able to locate and interview some important actors of that period and to reconstruct exactly how the controversy started.
3. I interviewed Bill Bequette in July 1988 at his home in Kennewick, Washington. See Pierre Lagrange, 'E[ast] O[regonian] Journalist Broke First "Flying Saucer" Story,' *East Oregonian* (24 June 1997), 1, 5; 'A Moment in History: An Interview with Bill Bequette,' *International UFO Reporter* 23.4 (Winter 1998), 15, 20; and 'It Seems Impossible, but There It Is,' in John Spencer and Hilary Evans, eds, *Phenomenon: From Flying Saucers to UFOs – Forty Years of Facts and Research*, London: Futura, 1988, 26–45, here 26.
4. Ted Smith, Interview with Kenneth Arnold, Pendleton, OR, KWRC radio station, 26 June 1947 (this document, that I discovered in 1988, is in the form of a disc record). In his report to the Air Force sent at the beginning of July, Arnold wrote: 'I described what I had seen to my very good friend Al Baxter, who listened patiently and was very courteous but in a joking way didn't believe me.' I am referring here to the report addressed by Arnold to the Wright Field base (Dayton, Ohio) in early July 1947; reproduced in Steiger, *Project Blue Book*, 32.
5. Edward J. Ruppelt, *The Report on Unidentified Flying Objects*, Garden City: Doubleday, 1956, 35. Johnson also added to Ruppelt that 'the more they dug into the facts, however, and into Arnold's reputation, the more it appeared that he was telling the truth' and that as a result 'we all put a lot of faith in his story.' This may be true for the *Idaho Daily*

Statesman and of newspapers like the *East Oregonian* who knew Arnold in person, but not for the other journals that remained skeptical.

6. Associated Press, 'Whizzing "Pie-Pan" Plane Report Gets Army Skepticism,' *Oregon Journal* (26 June 1947), 1; Associated Press, 'Picture of "7 Dots" Proves Latest in Flying Disk Case,' ibid. (27 June 1947), 8; Tom Caton, 'Officials Doubt Story of Phantom Air Fleet,' *Oregonian* (27 June 1947), 1.
7. French ethnographer Jeanne Favret-Saada has shown in her investigation on sorcery in the French countryside how people exempted themselves of such 'naïve' beliefs and always sent her in search of 'others' in the next village who were supposed to believe in curses. Jeanne Favret-Saada, *Deadly Words: Witchcraft in the Bocage*, Cambridge: Cambridge University Press, 1981.
8. Howard Becker, *Outsiders*, New York: Free Press, 1963; Jean-Claude Schmitt, 'Les "superstitions,"' in Jacques Le Goff and René Rémond, eds, *Histoire de la France religieuse*, Volume 1: *Des dieux de la Gaule à la papauté d'Avignon*, Paris: Editions du Seuil, 1988, 417–551.
9. Arnold and Palmer, *Coming of the Saucers*, 14.
10. George H. Gallup, *The Gallup Poll Public Opinion, 1935–1971*, Volume 1: *1935–1948*, New York: Random House, 1972, 666. The first question asked: 'Have you read or heard about "flying saucers"?' According to the poll, 90 percent replied in the affirmative.
11. Anders Liljegren and Clas Svahn, 'The Ghost Rockets,' in Hilary Evans and John Spencer, eds, *UFOs, 1947–1987: The 40-Years Search for an Explanation*, London: Fortean Times, 1987, 32–8.
12. See, for example, Loren E. Gross, 'Ghost Rockets of 1946,' in Ron Story, ed., *The UFO Encyclopedia*, London: New English Library, 1980, 147–8.
13. 'Swarm of Mysterious Rockets Is Seen Over Capital of Sweden,' *New York Times* (12 August 1946), 1, 7; 'Swedes Use Radar In Fight on Missiles,' ibid. (13 August 1946), 1; 'Doolittle, Sarnoff Stir Swedish Talk,' ibid. (21 August 1946), 3; 'Doolittle Consulted by Swedes on Bombs,' ibid. (22 August 1947), 2.
14. The cover shown in Plate 7 illustrates André Fournier, 'Les derniers types de bombes planantes et volantes télécommandées,' *Science et Vie* 341 (February 1946), 67–76.
15. W. B. Courtney, 'Will Russia Rule the Air?,' *Collier's* (25 January 1947), 12–13, 59, 61; ibid. (1 February 1947), 16, 67, 69; and 'Russia Reaches for the Sky,' ibid. (26 April 1947), 18, 95, 97–9.
16. Paul Lashmar, *Spy Flights of the Cold War*, Annapolis, MD: Naval Institute Press, 1996, 88–9.
17. 'Letter from General N. F. Twining to Commanding General, Army Air Forces, 23 September 1947,' in Edward U. Condon, ed., *Scientific Study of Unidentified Flying Objects*, New York: Dutton, 1969, 894–5; Air Intelligence Division Study No. 203, Directorate of Intelligence and Office of Naval Intelligence, *Analysis of Flying Object Incidents in the U. S.*, Air Intelligence Report No. 100–203–79, Washington, DC, 10 December 1948.
18. *New York Times* (4 September 1946), 10; ibid. (17 September 1946), 8.
19. Bob Considine, 'The Disgraceful Flying Saucer Hoax,' *Cosmopolitan* 130.1 (January 1951), 32–3, 100–2.
20. Michael Ashley, *The History of the Science Fiction Magazine*, Volume 1: *1926–1935*, Chicago, IL: Henry Regnery, 1974.
21. Stephen J. Dick, *The Biological Universe: The Twentieth-Century Extraterrestrial Life Debate and the Limits of Science*, Cambridge: Cambridge University Press, 1996, 267, 271–2; Jerome Clark, 'Meeting the Extraterrestrials: How the ETH Was Invented,' in Dennis Stacy and Hilary Evans, eds, *UFOs, 1947–1997: From Arnold to the Abductees: Fifty Years of Flying Saucers*, London: Fortean Times, 1997, 69.
22. Ibid. UFO historian and encyclopedist Jerome Clark discusses the fact that the extraterrestrial hypothesis was mentioned before Keyhoe's article, but he does not mention the local newspaper accounts from 1947.

23. All the newspapers began to print articles on flying disks and flying saucers on 26 June 1947. Only one newspaper, the *East Oregonian* of Pendleton, Oregon, printed an article on 25 June 1947, thus starting the public debate. 'Pilot Sees Planes From Other World,' *La Grande Evening Observer* (26 June 1947), 4. The article does not explore this hypothesis. 'Strange "Planes" Sighted Shooting Across Heavens,' *Vancouver Sun* (26 June 1947); cited in Jan L. Aldrich, *Project 1997: A Preliminary Report on the 1947 UFO Sighting Wave*, n.p.: UFO Research Coalition, 1997, 175–6.
24. Of course, the debate on extraterrestrial life is very old, but the book by Sir Harold Spencer Jones, *Life on Other Worlds* (London: English Universities Press, 1940), is considered the starting point of this new wave of discussions on life elsewhere. See Dick, *Biological Universe*, 160–221; more generally, Stephen J. Dick, *Plurality of Worlds: The Origins of the Extraterrestrial Life Debate from Democritus to Kant*, Cambridge: Cambridge University Press, 1984; and Michael J. Crowe, *The Extraterrestrial Life Debate, 1750–1900: The Idea of a Plurality of Worlds from Kant to Lowell*, Cambridge: Cambridge University Press, 1986.
25. Marjorie Hope Nicholson, *Voyages to the Moon*, New York: Macmillan, 1948, 257.
26. See the entry 'Pulp Magazines' in James Gunn, ed., *The New Encyclopedia of Science Fiction*, New York: Viking, 1988, 374–7. In particular, the author of this entry argues: 'A cheap and accessible form of entertainment, the pulps were never highly thought of by most academics, slick-paper critics or various defenders of public morality. The fact that they provided on outlet for SF tended to lower the genre's reputation and establish a stigma that still is being lived down.' To see how the science fiction subculture organized itself in order to demonstrate the legitimacy of science fiction literature, see among other works, Harry Warner Jr., *All Our Yesterdays: An Informal History of Science Fiction Fandom in the Forties*, Chicago, IL: Advent, 1969.
27. For example, many science fiction pulp authors were jealous of authors like Ray Bradbury (1920–), who had succeeded in being published outside the pulp magazines, in the slicks.
28. Arnold and Palmer, *Coming of the Saucers*, 20. In 1948, French intellectual Jean-Paul Sartre (1905–1980) translated and published in his journal *Les Temps Modernes* a study by Gershon Legman entitled 'The Psychopathology of Comics,' which had previously appeared in the American journal *Neurotica;* see Gershon Legman, 'Psychopathologie des comics,' *Les Temps Modernes* 4.43 (May 1949), 916–33. Previously, Sartre had already published another paper denouncing comics; see David Hare, 'Comics,' *Les Temps Modernes*, 1.1 (1946), 353–61.
29. 'Harassed Saucer-Sighter Would Like to Escape Fuss,' *Oregonian* (28 June 1947); 1; Hal Boyle, 'Green Martians Kidnaps Boyle! Writer Whisked Away in "Saucer",' *The Idaho Daily Statesman* (8 July 1947), and 'Boyle Returns From Disc Trip and Promptly Goes on Water Wagon,' ibid. (9 July 1947); 'Speaking of Pictures... A Rash of Flying Disks Breaks Out Over the U.S.,' *Life Magazine* (21 July 1947), 14–15. In 1942, the same artist Boris Artzybasheff had illustrated the belief in gremlins for *Life*.
30. See Daniel J. Kevles, *The Physicists: The History of a Scientific Community in Modern America*, New York: Alfred A. Knopf, 1978.
31. Gerard P. Kuiper, ed., *The Atmospheres of the Earth and Planets*, Chicago, IL: University of Chicago Press, 1949.
32. Writer R. DeWitt Miller (1910–1958), who had previously authored a series of articles on science enigmas in the journal *Coronet* (these articles were collected later in R. DeWitt Miller, *Forgotten Mysteries*, Chicago, IL: Cloud, 1947), published a paper that was reprinted in many daily journals: R. DeWitt Miller, 'Psychic Expert Says Saucers Are Old Story,' *Idaho Daily Statesman* (9 July 1947). As soon as he learned of the articles on saucers, *Amazing Stories* editor Ray Palmer was among the very first to advocate the interplanetary origin of saucers. See 'The Observatory,' *Amazing Stories* 21.10 (October 1947), 6; this October issue was on sale as early as August. In 1947, an occult subculture,

keen to embrace saucers as soon as any arrived, already existed. These occult groups constructed a view of outer space that was very different from the outer space of astronomy and close to the universe of channels that developed in other occult and New Age subcultures. See Lagrange, 'It Seems Impossible, but There It Is,' 40–2.

33. Gallup, *The Gallup Poll Public Opinion*, 666; Clark, *UFO Encyclopedia*, 377.
34. Donald E. Keyhoe, 'The Flying Saucers Are Real,' *True* 26.152 (January 1950), 11–13, 83–7, and *Flying Saucers Are Real*, New York: Fawcett, 1950.
35. For example, see the opposition between the views expressed by David Jacobs (*UFO Controversy in America*, 56–7) and by John Keel; see his 'The Man Who Invented Flying Saucers,' *Fortean Times* 41 (Winter 1983), 52–7.
36. This is the case, for example, of Raymond A. Palmer (1910–1977), editor of *Amazing Stories*, of R. DeWitt Miller and of Meade Layne (1882–1961), director of the occult-oriented Borderland Science Research Associates, among many others.
37. Keyhoe, *Flying Saucers Are Real*, 62, 50.
38. Ibid., 50–1.
39. See notes 1 and 2 above.
40. See the classic studies by Carlo Ginzburg, *The Cheese and the Worms*, Baltimore, MD: Johns Hopkins University Press, 1976; and Schmitt, 'Les "superstitions." '
41. Michel de Certeau, Dominique Julia and Jacques Revel, 'La Beauté du mort' [1970], in Michel de Certeau, *La Culture au pluriel*, Paris: Christian Bourgois, 1980, 49–80.
42. See James Miller's contribution, Chapter 13 in this volume.
43. Of course this does not mean that they do not exist. Rather, they are constructions, and when they are constructed, they become real and have real consequences.
44. Becker, *Outsiders*.
45. Schmitt, 'Les "superstitions."'
46. See, for example, Roy Wallis, ed., *On the Margins of Science: The Social Construction of Rejected Knowledge*, Keele: University of Keele, 1979; in particular the chapters by Harry Collins and Trevor Pinch, 'The Construction of the Paranormal: Nothing Unscientific Is Happening,' 237–69; and by Ron Westrum, 'Knowledge About Sea Serpents,' 293–314.
47. For a beautiful case study that shows how actors, both human and non-human, construct their social and natural worlds, see Michel Callon, 'Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay,' in John Law, ed., *Power, Action and Belief: A New Sociology of Knowledge?*, London: Routledge, 1986, 196–223.

View publication stats